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**REMARKS**

Claims 1-36 are all the claims pending in the application. Claims 24-29 are allowed. Claims 8 and 18-23 stand objected to only as being dependent upon a rejected base claim, and would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. Claims 8, 18, and 23 have been rewritten in independent form. Applicants respectfully traverse these rejections based on the following discussion.

**I. The Prior Art Rejections**

Claims 1, 9, 12, 13, and 30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Strojwas, "Design for Manufacturability and Yield". Proc. Of the 26<sup>th</sup> ACM/IEEE Conf. on Design Automation, 1989, pp. 454-459, hereinafter referred to as "Strojwas". Claims 3-5, 10, 14-17, and 32-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Strojwas in view of Michael, "A Flexible Statistical Model for CAD of Submicrometer Analog CMOS Integrated Circuits", Proc. of the 1993 IEEE/ACM Int'l Conf. on CAD, 1993, pp. 330-333, hereinafter called "Michael". Claims 3-5, 10, 14-17, and 32-34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Strojwas, in view of Michael, and Bryant et al., hereinafter "Bryant" (U.S. Patent No. 6,239,591). Applicants respectfully traverse these rejections based on the following discussion.

**A. The Rejection Based on Strojwas**

The Office Action argues that Strojwas discloses, for example, in Figure 3, a method of tuning a statistical process simulator by comparing observed distributions of data from a fabrication line with the performance distributions output by the statistical process simulator. If the simulated performance distributions and the observed distributions do not match, the statistical process simulator is modified in until they do match. However, Strojwas

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does not provide any teaching of "removing defective devices from said test parametric data" before "comparing said models to said test parametric data" as defined by independent claims 1 and 30 or "measuring features of non-defective devices to produce measured features" before "comparing said simulated result to a corresponding measured feature" as defined by independent claim 9.

The claimed invention removes chips with "bad" or "error" data from the in line parametric data database and outputs a "screens" file to tell which parameter is causing screen loss. This not only streamlines the process, but also verifies the in line test data before time is used in the rest of the procedure. By screening the in line test data in the same manner the manufacturing line would be screened and one ordinarily skilled in the art could weed out devices that would have been thrown away in manufacturing screens (see paragraph 25 of the application). To the contrary, Strojwas is silent regarding any such feature.

Therefore, it is Applicants position that Strojwas does not teach or suggest "removing defective devices from said test parametric data" before "comparing said models to said test parametric data" as defined by independent claims 1 and 30 or "measuring features of non-defective devices to produce measured features" before "comparing said simulated result to a corresponding measured feature" as defined by independent claim 9. Thus, Applicants submit that independent claims 1, 9, and 30 are patentable over the prior art of record. Further, dependent claims 12 and 13 are similarly patentable, not only because of their dependency from independent claim 9, but also because of the additional features of the invention they define. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

#### **B. The Rejection Based on Strojwas and Michael**

As shown above, the Strojwas reference alone does not teach or suggest "removing defective devices from said test parametric data" before "comparing said models to said test parametric data" as defined by independent claims 1 and 30 or "measuring features of non-

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defective devices to produce measured features" before "comparing said simulated result to a corresponding measured feature" as defined by independent claim 9. The same arguments are incorporated by reference with respect to the claimed feature "removing defective chips from said first parameters to modify said first set of go-data" defined by independent claim 16. Applicants further submit that the Michael reference similarly does not teach or suggest these features.

More specifically, the Michael reference is a fairly limited disclosure that provides a method of computer-aided design that accounts for both parameter mismatch and inter-die parameter variations. As with Strojwas, Michael is similarly silent regarding the removal of defective chip data from the data that is compared to the simulated data. Thus, it is Applicants position that the proposed combination of Strojwas and Michael would not teach or suggest the invention defined by independent claims 1, 9, 16, and 30.

Thus, Applicants submit that the proposed combination of references does not teach or suggest "removing defective devices from said test parametric data" before "comparing said models to said test parametric data" as defined by independent claims 1 and 30 or "measuring features of non-defective devices to produce measured features" before "comparing said simulated result to a corresponding measured feature" as defined by independent claim 9. Therefore, it is Applicants position that independent claims 1, 9, 16, and 30 are patentable over the prior art of record. Further, dependent claims 3-5, 10, 14, 15, 17, and 32-34 are similarly patentable, not only because they depended from a patentable independent claim, but also because of the additional features of the invention they define. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

**C. The Rejection Based on Strojwas and Michael in view of Bryant**

As shown above, the proposed combination of Strojwas and Michael does not teach or suggest "removing defective devices from said test parametric data" before "comparing said models to said test parametric data" as defined by independent claims 1 and 30 or "measuring features of non-defective devices to produce measured features" before "comparing said

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simulated result to a corresponding measured feature" as defined by independent claim 9. The Bryant reference discloses a system and method for measuring hysteresis effects within silicon-on-insulator (SOI) wafer manufacturing processes. However, Bryant is similarly silent with regard to any teaching regarding the removal of defective chip data from the data that is compared to the simulated data. Thus, it is Applicants position that the proposed combination of Strojwas, Michael, and Bryant would not teach or suggest the invention defined by independent claims 1, 9 and 30.

Thus, Applicants submit that the proposed combination of references does not teach or suggest "removing defective devices from said test parametric data" before "comparing said models to said test parametric data" as defined by independent claims 1 and 30 or "measuring features of non-defective devices to produce measured features" before "comparing said simulated result to a corresponding measured feature" as defined by independent claim 9. Therefore, it is Applicants position that independent claims 1, 9, and 30 are patentable over the prior art of record. Further, dependent claims 2, 6, 7, 11, 31, 35, and 36 are similarly patentable, not only because they depended from a patentable independent claim, but also because of the additional features of the invention they define. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

## **II. Formal Matters and Conclusion**

In view of the foregoing, Applicants submit that claims 1-36, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.


Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

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Please charge any deficiencies and credit any overpayments to Attorney's Deposit  
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Respectfully submitted,

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